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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Xiaoqin Duan

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EXAMINER

BAIG, ADNAN

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,462	Applicant(s) DUAN, XIAOQIN	
	Examiner ADNAN BAIG	Art Unit 4172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/9/2007, 3/23/2007, 12/27/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/9/2007, 3/23/2007, 12/27/2005.

DETAILED ACTION

Drawings

1. The drawings are objected to because the arrow indicators in Figures 2-6 cross over the actual instruction. Examiner interprets the cross out over instruction to be avoided. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 recites the limitation "before the step B" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim because the claim points to sending an LCS location response before acknowledgement is handled by the client and forwarded to the LCS system, wherein claim 14 recites the location response is sent to the requestor after acknowledgement with handling result is received.

3. Claim 15 recites the limitation "before the step B:" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim because the claim points to sending an LCS location response before acknowledgement is handled by the client and forwarded to the LCS system, wherein claim 14 recites the location response is sent to the requestor after acknowledgement with handling result is received.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7 and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Nyu (US 2004/0157620).

Regarding Claim 1, Nyu discloses a handing method for providing a client with the location estimate of a target User Equipment (UE), the method comprising the steps of:

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A. The LCS system sending to the client the Location Information message carrying the location estimate of the target UE, (Referring to Fig. 5, Nyu illustrates a location service system where the location measurement (estimate) of UE 6B is performed by (V-MSC/SGSN 3C) with Ran 4C in step 521. The location information is forwarded to gateway (R-GMLC 2A) and relayed to Client 1A as a location response (522) [0078] lines 12-22).

B. The client, handling the location estimate of the target UE, and sending to the LCS system Location Information Acknowledgement with a handling result, (Referring to Fig. 5, at step 523 the LCS system receives acknowledgement from client 1A.

V-MSC/SGSN and Ran 4C are aware of the final received location information of client 1A (522). The LCS system learns a final handling result based on the client acknowledgement and location based-service can be performed after the connection (acknowledgement), [0073]).

Regarding Claim 2, Nyu discloses a method according to claim 1, further comprising before the step A: a requestor originating a LCS location request against a target UE to the LCS system, where the LCS system is notified and requesting the LCS system to provide the location estimate of the target UE to a client, and a location estimate of the target UE was successfully obtained by the LCS system. (Referring to Fig. 5, Nyu illustrates an originating request at step 501 to server V-MSC/SGSN3C [0075] where target UE location information is measured (step 521 estimated) lines [0078] 16-23, and is provided successfully to Client 1A (step 522).

Regarding Claim 3, Nyu discloses a method according to claim 1, further comprising after the step B:

C. the LCS system, after receiving the Location Information Acknowledgement with the handling result, sending to the requestor an LCS Location Response carrying the handling result, (Referring to Fig. 2, Nyu illustrates the LCS system (items 3C and 4C) receiving information acknowledgement output 1A, and forwards acknowledgement and handling result to UE 6B. [0073].

Regarding Claim 4, Nyu discloses a method according to Claim 3, further comprising a method according to Claim 3, wherein the step C further comprises the steps of:

C1. After receiving the Location Information Acknowledgement with the handling result, GMLC in the LCS system sending to CN in the LCS system a subscriber location report acknowledgement which carrying the handling result, (Referring to Fig. 5, step 523 (acknowledgement) is inherently relayed through V-GMLC 2C to the CN (V-MSC/SGSN 3C).

C2. After receiving the Subscriber Location Report Acknowledgment, the CN sending to the requestor an LCS Location Response carrying the handling result, (Referring to Fig. 5, step 523 illustrates the CN forwarding the acknowledgement to originating request UE 6B), [0073].

Regarding Claim 5, Nyu discloses a method according to Claim 1, wherein

the step A comprises the GMLC in the LCS system sending to the client a Location Information message carrying the location estimate of the target UE, (Referring to Fig. 5, R-GMLC 2A sends the location information message (522) containing the location estimate measured in step 521 to client 1A, [0078] lines 20-22.

the step B comprises the client, after receiving the Location Information message, handling the location estimate of the target UE, and then sending to the GMLC the Location Information Acknowledgement carrying the handling result, (Referring to Fig. 5, at step 522 the client handles the location information, and the acknowledgement at step 523 is relayed through V-GMLC 2C (gateway) to the CN (V-MSC/SGSN 3C) inherently, [0073].

Regarding claim 6, Nyu discloses a method according to Claim 5, further comprising before the step B: GMLC in the LCS system sending to the CN in the LCS system the Subscriber Location Report Acknowledgement, (Referring to Fig. 5, acknowledgement at step 523 is relayed through V-GMLC 2C (gateway) to the CN (V-MSC/SGSN 3C) inherently, [0073].

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Regarding claim 7, Nyu discloses a method according to Claim 1, further comprising before the step B: the LCS system sending to the requestor the LCS Location Response, (Referring to Fig. 5, step 523 illustrates the CN (LCS system) forwarding the acknowledgement (location response) to originating request UE 6B, [0073]).

Regarding Claim 12, Nyu discloses a method according to Claim 4, wherein the CN comprises MSC/MSC Server or SGSN, [0055] lines 3-8.

Regarding Claim 13, Nyu discloses a method according to Claim 1, wherein the client comprises an LCS Client, [0053] lines 5-10.

Regarding claim 14, Nyu discloses a method according to Claim 2, further comprising after the step B:

C. the LCS system, after receiving the Location Information Acknowledgement with the handling result, sending to the requestor an LCS Location Response carrying the handling result, (Referring to Fig. 5, step 523 illustrates the CN(LCS system) forwarding the acknowledgement (location response) to originating request UE 6B), [0073]).

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Regarding Claim 15, Nyu discloses a method according to Claim 5, further comprising before the step B: the LCS system sending to the requestor the LCS Location Response, (Referring to Fig. 5, step 523 illustrates the CN (LCS system) forwarding the acknowledgement (location response) to originating request UE 6B), [0073]).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyu (US 2004/0157620) in view of Zombek (US 2001/0032232).

Regarding Claim 8, Nyu discloses a handling result with acknowledgement can be forwarded to a location service system once it has received the location estimate of the target UE, (Referring to Fig. 5, Nyu illustrates a location service system where the location measurement (estimate) of UE 6B is performed by (V-MSC/SGSN 3C) with Ran 4C in step 521. The location information is forwarded to gateway (R-GMLC 2A) and relayed to Client 1A as a location response (522) [0078] lines 12-22. The LCS system learns a final handling result based on the client acknowledgement and location based-service can be performed after the connection (acknowledgement), [0073]).

Nyu does not expressly disclose whether the handling result of the client comprises a failure success flag indicating that the location estimate has been handled successfully by the client, however the limitation is well known in the art of communications.

Zombek discloses a system where a client device and server communicate messages with one another, (Referring to Fig. 7A, a client device can be seen communicating through gateway 116 with server 122. In the instance where a message has been sent successfully to the client, the gateway is able to notify the server of acknowledgement with an "ACK" control message, [0186].

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to send acknowledgement of a handling result as taught by Nyu, and include a success control message (flag) as taught by Zombek, to notify the LCS server of the final result of the target UE estimation.

Regarding Claim 9, the combination of Nyu in view of Zombek disclose a method according to Claim 1, wherein the handling result of the client comprises a failure flag indicating that the location estimate has been handled unsuccessfully by the client, (Referring to Fig. 7A, in the case of a failure or when a message is not acknowledged by a client, a NACK message is sent to the server, [0186]).

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Regarding Claim 10, the combination of Nyu in view of Zombek, disclose a method according to Claim 9, wherein the handling result comprises further the error cause, [0553].

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nyu (US 2004/0157620) in view of Zombek (US 2001/0032232) as applied to claims 8-10 above, and further in view of Wheeler (US 2004/0198385)

Regarding Claim 11, the combination of Nyu in view of Zombek disclose wherein the requestor comprises the target UE being located, (Referring to Fig. 5, Nyu illustrates an originating request at step 501 to server V-MSC/SGSN3C [0075] where target UE location information is measured (step 521 estimated) lines [0078] 16-23, and is provided successfully to Client 1A (step 522).

The combination of Nyu in view of Zombek, do not disclose a third-party device other than the target UE requesting location. However the limitation is well known in the art of communications.

Referring to Fig. 1, Wheeler illustrates a third party device (item 30) other than a target UE able to request location of a mobile terminal 20, [0006, 0009].

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include the system as taught by the combination of Nyu and zombek, within

the system of Wheeler, to allow a third party device to request location information at the same time of the original request.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis West can be reached on 571-272-7859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/ADNAN BAIG/

Examiner, Art Unit 4172

/Lewis G. West/

Supervisory Patent Examiner, Art Unit 4172